

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-21 (canceled)

Claim 22 (new): A semiconductor device comprising:

a semiconductor substrate;

a capacitor having a lower electrode formed on the semiconductor substrate, a metal oxide insulator film formed on the lower electrode, and an upper electrode formed on the metal oxide insulator film;

a metal pattern electrically connected to at least one of the upper and lower electrodes of the capacitor;

a water constituents diffusion preventive film formed on a side face and a top face of the metal pattern so as to cover the metal pattern; and

a first protective film provided between the side face of the metal pattern and the water constituents diffusion preventive film.

Claim 23 (new): A semiconductor device according to claim 22, wherein the first protective film prevents diffusion of water constituents, and oxidation of the metal pattern.

Claim 24 (new): A semiconductor device according to claim 22, wherein the first protective film is a highly insulating and passivated metal oxide film.

Claim 25 (new): A semiconductor device according to claim 22, wherein the metal pattern comprises a conductive layer electrically connected to the capacitor and a protective layer which protects a top face of the conductive layer, and wherein the protective layer is exposed by the first protective film, and the side face of the metal pattern is covered with the first protective film.

Claim 26 (new): A semiconductor device according to claim 25, wherein a tapered surface is formed on the side face of the first protective film, and an angle between the tapered surface and the top face of the conductive layer is not greater than about 70°.

Claim 27 (new): A semiconductor device according to claim 22, wherein the water constituents diffusion preventive film is formed by a reactive sputtering method.

Claim 28 (new): A semiconductor device according to claim 27, wherein the water constituents diffusion preventive film is a silicon nitride film or a silicon oxynitriding film.

Claim 29 (new): A semiconductor device according to claim 22, further comprising a water constituents diffusion preventive film formed on the first protective film or the metal pattern.

Claim 30 (new): A semiconductor device comprising:

a semiconductor substrate;

a capacitor having a lower electrode formed on the semiconductor substrate, a metal oxide insulator film formed on the lower electrode, and an upper electrode formed on the metal oxide insulator film;

an interlayer insulator formed on the capacitor and the semiconductor substrate;

a hole formed in the interlayer insulator so as to expose a top face of at least one of the upper and lower electrodes of the capacitor;

a metal pattern formed in the hole which is electrically connected to the at least one of the upper and lower electrodes of the capacitor;

a insulating film having a low water constituent content and formed on the metal pattern inside the hole; and

a water constituents diffusion preventive film provided on the metal pattern or the insulating film having the low water constituent content.

Claim 31 (new): A semiconductor device according to claim 30, wherein the sum of a thickness of the metal pattern inside the hole and a thickness of the

insulating film having the low water constituent contents, inside the hole, as measured from a bottom face of the hole, is substantially equivalent to not less than a thickness of the interlayer insulator.

Claim 32 (new): A semiconductor device according to claim 30, wherein the insulating film having the lower water constituent contents is a silicon oxide film, and is formed by a chemical vapor deposition method using a gas containing an organic silicon compound.

Claim 33 (new): A semiconductor device according to claim 30, wherein the insulating film having the low water constitute contents has a thickness substantially equivalent to not less than half of the inside diameter of the hole.

Claim 34 (new): A semiconductor device according to claim 30, further comprising a first protective film formed on the metal pattern inside the hole, wherein the first protective film and the insulating film having the low water constitute contents are formed in the hole.

Claim 35 (new): A semiconductor device according to claim 30, wherein the metal pattern has a conductive layer electrically connected to the capacitor and a protective layer which protects the top face of the conductive layer, and

wherein the protective layer is exposed by the first protective film, and the side face of the metal pattern is covered with the first protective film.

Claim 36 (new): A semiconductor device according to claim 30, wherein the water constituents diffusion preventive film is formed by a reactive sputtering method.

Claim 37 (new): A semiconductor device according to claim 36, wherein the water constituents diffusion preventive film is a silicon nitride film or a silicon oxynitriding film.

Claim 38 (new): A semiconductor device according to claim 30 further comprising a water constituents diffusion preventive film formed on the first protective film or metal pattern.